Claims

1. A method for the production of a cellular allogeneic vaccine, based upon an allogeneic APC, comprising the following steps:

a) isolation of an APC from a subject, preferably from a normal blood donor or from a patient suffering from myeloid malignancies, or providing an APC already established and/or isolated from a myeloid leukemia cell line;

b) modifying the APC with an antigen using any of the following methods: pulsing, transfection, infection or fusion; and

c) treatment of the APC with an agent capable of removing sialic acid on the surface of said APC; and optionally

d) culturing the modified APC in a suitable medium.

2. A method according to claim 1 comprising a further step between step a) and step b): cultivation of an APC, preferably a monocyte, or differentiation of an APC, preferably a monocyte, in a suitable medium into monocyte-derived DC, macrophage or macrophage-derived DC.

3. A method according to claim 1 wherein the APC is an allogeneic monocyte or an in-vitro differentiated cell which is directly or indirectly derived from an allogeneic monocyte.

4. A method according to claim 1 wherein the antigen, as recited in step b), is a cancer antigen, preferably in the form of a soluble antigen, a tumor cell lysate or a viable tumor cell, all of allogeneic origin.

5. A method according to claim 4 wherein step b) is performed through incorporating the antigen within the APC using any one of the following methods: pulsing with soluble antigen or tumor cell lysate, transfection with genes coding for the antigen or fusion with an allogeneic tumor cell.

6. A method according to claim 1 wherein the agent capable of removing sialic acid on the cell surface of the APC, as recited in step c), is neuraminidase (NAS), one or more genes coding for neuraminidase or neuraminidase-producing viruses or bacteria; or an antibody against CD43.

7. A method according to claim 6 wherein the treatment of step c) is performed by any of the following methods: treating the APC with NAS, transfecting the APC with genes coding for NAS or infecting the APC with NAS-producing viruses or bacteria.

8. A method according to claim 1 comprising an additional step in which the APC is exposed to hyperthermia during step b) or between steps b) and c).

9. A method according to claim 8 wherein the hyperthermia is performed at a temperature of from 39 to 42 °C and during from 2 to 6 hours.

10. A cellular allogeneic vaccine obtainable by a method according to any of the claims 1 to 9.

11. A composition comprising a vaccine according to claim 10 and a pharmaceutically acceptable carrier.

12. A frozen container comprising a composition according to claim 11.

13. Therapeutic use of an effective amount of a vaccine according to claim 10 or a composition according to claim 11.

14. A vaccine according to claim 10 for medical use.

15. Use of a vaccine according to claim10 for the manufacture of a medicament for use against cancer.